



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/786,305 | 02/26/2004 | Soon Hyung Kwon | HI-0188 | 3454 |
| 34610 | 7590 | 04/04/2005 | EXAMINER | |
| FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153 | | | SEVER, ANDREW T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2851 | |

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------------------|-------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/786,305 | KWON, SOON HYUNG | |
| | Examiner Andrew T. Sever | Art Unit 2851 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 - Certified copies of the priority documents have been received in Application No. _____.
 - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Applicant uses the generic figure number which discussing the figures instead of the specific figure number. Appropriate correction is required.

For example on page 16 line 2 applicant indicates that figure 6 is being discussed, however there is no generic figure 6 in the drawings, rather there is a figure 6a and a figure 6b. Applicant needs to indicate which figure is being discussed using the specific numbering in the drawings not a generic figure number.

2. The use of the trademark DMD has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Although applicant does indicate that DMD is a trademark, applicant does not supply the generic terminology.

Claim Objections

3. Claims 2 and 5 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 2 essentially claims that last paragraph of claim 1, since it is dependent on claim 1, this is improper. Claim 5 likewise claims essential the same thing as claim 3 of which it is dependent on. The only difference between these claims and the ones they are dependent on is the order that the lenses are discussed; since the order discussed does not affect the physical disposition of the lenses or their functionality; the claims do not limit their parent and are hereby objected to.

4. Claims 1-9 are objected to because of the following informalities: the use of a Trademark in the claims. Appropriate correction is required.

DMD is a trademark and should not be used in the claims. See MPEP 2173.05(u).

5. Claims 1-9 are objected to because of the following informalities: terminology that is different then the accepted meaning. Appropriate correction is required.

Applicant claims a second lens which based on the specification is actually a mirror. Lenses and mirrors are not interchangeable terms. Although their function can be the same making them interchangeable (a lens can be substituted for a mirror), the term for a

Art Unit: 2851

lens and a mirror is not. It is suggested that applicant should claim the second lens/mirror as an optical element having the intended function.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

(Applicant does not define the lens until claim 7.)

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant claims in claim 1 the bottom paragraph, that the rod lens transmits the first and second lens groups. Rod lenses generally are not capable of transmitting solid objects like first and second lens groups. Further it is unclear what the rod lens is supposed to be transmitting since it is in figure 5 of applicant's drawings before the first and second lenses and therefore cannot be transmitting the image that passes through the first and second lenses. Since there does not appear to be a logical place to place a coma to correct this phrase, the claim is indefinite. For purposes of a prior art rejection this limitation will be ignored and the placement of the rod lenses and first and second lenses will be based on their disposition in figure 6a of applicant's drawings. Claims 2-9 are dependent on claim 1 and are rejection due to their dependency and additionally the presence of the same phrase is some of the dependent claims.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Koga et al. (US 6,129,437.)

Koga teaches in figure 1 a projection type display optical system comprising:

A light source (51);

A digital mirror device (56) as an image display means which receives a light beam emitting from the light source; and

An illumination unit installed in between the light source and the image display means, and comprising: a rod lens operating (60) as an optical device for unifying the brightness distribution of an incident light ray from the light source and emitting the brightness unified light ray; a first lens (1) for transmitting the emitted light ray by the rod lens; a second lens (2) on which the transmitted light ray from the first lens incidents; and

A projection part (57) for magnifying and projecting an image formed on the image display means onto a screen (58),

Wherein the first and second lenses are set in such a manner that an optical axis of the second lens and an optical axis of the first lens do not coincide with each other (see column 5 lines 42-50).

With regards to applicant's claim 2:

See above.

With regards to applicant's claim 3:

See column 6 lines 29-39.

With regards to applicant's claim 4:

See figure 1.

With regards to applicant's claim 5:

See above.

With regards to applicant's claim 6:

In order for the requirements of column 6 lines 29-39 to be met the angles must be equal.

With regards to applicant's claim 7:

Part 2 is a mirror.

With regards to applicant's claim 8:

See the prior art figure 10, which teaches the use of a reflection mirror for changing the path between first and second lenses. (It should be noted that figure 4 shows an embodiment wherein the second lens itself is designed in such a way that it changes the path between first and second lenses.)

With regards to applicant's claim 9:

In the embodiment of figure 4 where the projector is made more compact a aspherical mirror is used due to the bending of the light see column 6 line 64 through column 7 line 10 (any mirror that is not spherical is aspherical.)

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6,558,007 to Nakagawa teaches in figure 1 teaches the use of an aspheric lens 32 as the second lens.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

Art Unit: 2851

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS



JUDY NGUYEN
SUPERVISORY PATENT EXAMINER